

IN THE CLAIMS

Please make the following claim substitutions:

1 1. (Currently amended) A method of regulating traffic in a communications
2 network comprising the steps of:
3 aggregating one or more component traffic flows into a component traffic stream;
4 aggregating one or more component traffic streams into an aggregate stream;
5 carrying the aggregate stream in a single, FIFO queue; and
6 generating selective backpressure on selected ones of the component traffic
7 streams such that selected ones of the component streams are desirably regulated.

1 2. (Currently amended) The method according to claim 1, wherein said
2 aggregation of the one or more traffic flows is performed according to ~~the~~ a destination
3 of the traffic flows and the similarity of ~~the~~ Quality of Service requirements of the traffic
4 flows.

1 3. (Currently amended) The method according to claim ~~3~~ 1, wherein said
2 aggregation of the one or more component traffic streams into ~~an~~ said aggregate
3 stream is performed according to ~~the~~ a destination of the component traffic stream.

1 4. (Currently amended) The method according to claim 3, wherein said
2 aggregation is performed according to ~~the~~ an absence of delay guarantees.

1 5. (Canceled)

1 6. (Currently amended) The method according to claim ~~5~~ 1, wherein said
2 generating selective backpressure step comprises the steps of:
3 maintaining an aggregate queue occupancy counter;
4 maintaining a credit counter for each component traffic stream; and
5 asserting selective backpressure for a specific one of the component traffic
6 streams when ~~the~~ a corresponding credit counter reaches a predetermined threshold.

1 7. (Original) The method according to claim 6 further comprising the steps of:
2 initializing the credit counter to a maximum value;

3 decrementing the counter when an item of specific type arrives in the aggregate
4 queue;

5 incrementing the counter when the queue is given service granted to the specific
6 type of traffic stream without regard to the type of data item which departs the single
7 FIFO queue;

8 truncating the counter at a specific maximum level; and

9 resetting the counter to a maximum value when the occupancy of the aggregate
10 queue falls to zero.

1 8. (Currently amended) The method according to claim 6, wherein said
2 backpressure asserting step is performed when the credit counter reaches a as value of
3 zero.

45 1 9. (Currently amended) The method according to claim 4, wherein the two of
2 said component traffic streams are the a Guaranteed Bandwidth Traffic Stream and the
3 a Best Effort Traffic Stream, and wherein each data item arrival and departure event
4 can be associated with either guaranteed or excess bandwidth service provided by a
5 corresponding scheduler.

1 10. (Currently amended) The method according to claim 9, wherein the
2 generating selective backpressure step further comprises the steps of:
3 maintaining an aggregate queue occupancy counter;
4 maintaining a Best Effort credit counter;
5 asserting a first type of backpressure ~~backpresure~~; and
6 asserting a second type of backpressure.

1 11. (Original) The method according to claim 10 wherein said first type of
2 backpressure is applied towards both the Guaranteed Bandwidth Traffic Stream and the
3 Best Effort Traffic Stream and wherein said second type of backpressure applies toward
4 the Best Effort Traffic Stream.

1 12. (Currently amended) The method according to claim 4+ 10, wherein said
2 step of maintaining a said Best Effort credit counter further comprises the steps of:

3 initializing the counter to a maximum value;
4 incrementing the counter when an excess bandwidth service is provided to said
5 aggregate queue;
6 decrementing the counter when a data item arrival is associated with excess
7 bandwidth service; and
8 resetting the counter to its maximum value each time ~~the occupancy~~ the
9 occupancy of said aggregate queue reaches a value of zero.

1 13. (Original) The method according to claim 12 wherein said incrementing
2 step is not performed if the first type of backpressure is asserted.

1 14. (Original) The method according to claim 12, wherein said
2 decrementing step is not performed if the arriving data item belongs to the Guaranteed
3 Bandwidth Traffic Stream.

1 15. (Currently amended) The method according to claim 10, wherein said step
2 of asserting a first type of backpressure occurs whenever the aggregate queue
3 occupancy ~~enter~~ counter exceeds a predefined threshold.

1 16. (Original) The method according to claim 10, wherein said step of
2 asserting a second type of backpressure occurs whenever the Best Effort credit counter
3 reaches a value of zero.
